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ABSTRACT

To investigate the career maturity of welfare recipients, this thesis examines six independent variables: (1) race; (2) sex; (3) age; (4) level of formal education; (5) general intelligence; and (6) locus of control. Scales taken from the Career Maturity Inventory served as the dependent variables. The sample consisted of 83 welfare recipients who were eligible for the Job Opportunities and Basic Skills (JOBS) program in a midwestern state. Of the 100 comparisons that were made, 30 were for main effects and 70 were for interactions. Results for the main effects indicate that individuals who possess an internal locus of control are more mature in decisiveness and orientation, that females are more mature in involvement than males, and that individuals with general intelligence (91 to 100) are more mature in compromise. As for the significant interactions, findings revealed the following positive correlations: (1) formal education, general intelligence, and locus of control with Involvement; (2) formal education and age with Decisiveness; (3) race, sex, and general intelligence with Independence; and (4) race and sex with Orientation. Five tables and three figures offer statistical summaries. (RJM)

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CAREER MATURITY OF WELFARE RECIPIENTS

being

A Thesis Presented to the Graduate Faculty
of the Fort Hays State University in
Partial Fulfillment of the Requirements for
the Degree of Master of Science

by

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The Graduate Committee of Carol M. Beckman hereby
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requirement for the Degree of Master of Science.

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Table of Contents

	Page
Introduction.....	1
Career Maturity.....	1
Welfare Recipients and Career Maturity.....	3
Race, Sex, Age, Level of Formal Education and Career Maturity.....	8
General Intelligence and Career Maturity.....	12
Locus of Control and Career Maturity.....	14
Summary.....	17
Statement of the Problem.....	18
Rationale and Importance of the Research.....	18
Composite Null Hypotheses.....	20
Independent Variables and Rationale.....	21
Definitions of Variables.....	22
Independent Variables.....	22
Dependent Variables.....	23
Limitations of the Study.....	23
Methodology.....	24
Setting.....	24
Subjects.....	24
Instruments.....	25
General Aptitude Test Battery.....	25
Rotter's I-E Scale.....	27
Career Maturity Inventory - Attitude Scale	
Counseling Form B-1.....	27

Design.....	28
Data Collection Procedures.....	31
Research Procedures.....	32
Data Analysis.....	33
Results.....	34
Discussion.....	72
Summary.....	72
Related Literature and the Results of the Present Study.....	74
Generalizations.....	77
Recommendations.....	78
References.....	79

List of Tables

	Page
Table 1: A Comparison of Mean Career Maturity Inventory - Attitude Scale Counseling Form B-1 Scores for Welfare Recipients According to Level of Formal Education, General Intelligence, and Locus of Control Employing a Three-Way Analysis of Variance...	36
Table 2: A Comparison of Mean Career Maturity Inventory - Attitude Scale Counseling Form B-1 Scores for Welfare Recipients According to Level of Formal Education, General Intelligence, and Age Employing a Three-Way Analysis of Variance.....	44
Table 3: A Comparison of Mean Career Maturity Inventory - Attitude Scale Counseling Form B-1 Scores for Welfare Recipients According to Level of Formal Education, Locus of Control, and Age Employing a Three-Way Analysis of Variance.....	50
Table 4: A Comparison of Mean Career Maturity Inventory - Attitude Scale Counseling Form B-1 Scores for Welfare Recipients According to General Intelligence, Locus of Control, and Age Employing a Three-Way Analysis of Variance.....	58

Table 5: A Comparison of Mean Career Maturity
Inventory - Attitude Scale Counseling
Form B-1 Scores for Welfare Recipients
According to Race, Sex and General Intelligence
Employing a Three-Way Analysis of Variance... 64

List of Figures

	Page
Figure 1: The Interaction Between the Independent Variables General Intelligence and Locus of Control for the Dependent Variable Involvement.....	42
Figure 2: The Interaction Between the Independent Variables Formal Education and Age for the Dependent Variable Decisiveness.....	56
Figure 3: The Interaction Between the Independent Variables Race and Sex for the Dependent Variable Orientation.....	71

List of Appendixes

	Page
Appendix A: Correlation Coefficients Between Item and Total Score for the I-E Scale.....	85
Appendix B: Permission to Utilize Data Generated from Pre-Orientation Vocational Assessment Sessions Conducted with Welfare Recipients Who were Eligible for the JOBS Program.....	88
Appendix C: Sample Letter to Subjects.....	91
Appendix D: Verbal Instructions for Test Administration.....	93
Appendix E: Instructions for Administration of the I-E Scale.....	96

Abstract

The purpose of the researcher was to investigate the career maturity of welfare recipients. The following six independent variables were investigated: race, sex, age, level of formal education, general intelligence, and locus of control. Dependent variables were scores from the following five scales of the Career Maturity Inventory - Attitude Scale Counseling Form B-1: Decisiveness, Involvement, Independence, Orientation, and Compromise. The sample consisted of 83 welfare recipients who were eligible for the Job Opportunities and Basic Skills (JOBS) program in a midwestern state. Five composite null hypotheses were tested at the .05 level of significance employing a three-way analysis of variance (general linear model).

A total of 100 comparisons were made plus 75 recurring. Of the 100 comparisons made, 30 were for main effects and 70 for interactions. Of the 30 main effects, 6 were statistically significant at the .05 level. Of the 70 interactions, 5 were statistically significant at the .05 level.

The results of the present study appeared to support the following generalizations:

1. individuals with internal locus of control are more mature in Decisiveness,
2. individuals with internal locus of control are more mature in Orientation,

3. females are more mature in Involvement than males,
4. individuals with general intelligence (91 to 100)
are more mature in Orientation,
5. individuals with general intelligence (91 to 100)
are more mature in Compromise, and
6. significant interactions for
 - (a) the independent variables general intelligence
and locus of control for the dependent variable Involvement,
 - (b) the independent variables formal education,
general intelligence, and locus of control for the dependent
variable Involvement,
 - (c) the independent variables formal education and
age for the dependent variable Decisiveness,
 - (d) the independent variables race, sex, and
general intelligence for the dependent variable
Independence, and
 - (e) the independent variables race and sex for the
dependent variable Orientation.

Introduction

Career Maturity

Vocational maturity (career maturity) has been defined as the level of competence people reach and demonstrate when dealing with the tasks and problems associated with vocational development at various life stages (Super & Overstreet, 1960). Vocational development has become known as the process through which people make vocational choices (Super, 1955).

In researching vocational development, Super, et al. (1957) theorized it as being on a continuum that involved both growth and learning. Their theory involved five life stages taken from Charlotte Buehler who wrote about general development. These five stages were: (1) growth from zero to age 14; (2) exploration from 14 to 25; (3) establishment from 25 to 45; (4) maintenance from 45 to anywhere from 55 to 75; and finally, (5) decline, which can start as early as age 55, but generally begins around age 65 until death. Super, et al. (1957) stated:

If the individual's behavior develops normally, without being arrested, then he will progress from one stage to another with increasing age, although his rate of development, and therefore the age at which he enters the various stages, may differ from that of other individuals. (p. 35)

According to Super et al. (1957), vocational behavior

and development have three major factors. The first is the roles each person plays. Society places specific sets of expectancies, or roles, on each of its members. The second is personal factors. The following are personal factors: intelligence, special aptitudes, interests, values, attitudes, and personality. The third is situational factors which includes anything external to the individual. The following are examples: socioeconomic status (SES), atmosphere of the home, societal biases, and familial attitudes. Thus, vocational development is a process which takes place on a continuum of time and involves much more than a single vocational choice at a single point in time. Crites (1965) stated, "...vocational choice is a comprehensive, multifaceted, ongoing process which encompasses many interrelated behaviors of the individual at various points in his prework life" (p. 2).

Super (1955) identified five dimensions of vocational maturity. He reported these dimensions as a basis for measuring vocational maturity. The dimensions were the following: (1) Orientation to Vocational Choice, (2) Information and Planning, (3) Consistency of Vocational Preference, (4) Crystallization of Traits and Aptitudes, and (5) Wisdom of Vocational Preference. Crites (1965) proposed that three of these dimensions could be condensed into two dimensions which he labeled the following: (1) choice competencies, and (2) choice attitudes. His theory of

vocational maturity contained four group factors. Two were Super's (1955), (1) consistency of vocational choice and (2) wisdom of vocational choice; and two were his own, (3) choice competencies, and (4) choice attitudes.

The original concept of vocational maturity (career maturity) was thought to be applicable only to adolescents according to Super and Kidd (1979). In more recent years, researchers have started looking at the career maturity of adults (Super & Kidd, 1979; and Manuele, 1983). Super et al. (1957) stated, "In judging the normality of one's behavior from a statistical point of view, one should be concerned with what group the individual is being compared. An individual could be considered normal in one group and abnormal in another" (p. 56).

Welfare Recipients and Career Maturity

Since 1935, many members of American society have become part of a special group or population known as welfare recipients. It was in 1935 that the Aid to Families with Dependent Children (AFDC) program became part of the Social Security Act, to provide assistance to widows and children in need (Nightingale, 1989). This special population has been studied and discussed by many researchers (Nightingale, 1989; Sklar, 1987; Cull and Hardy, 1973; Randolph & McCarthy, 1991; Rolle, 1977; and Bartlett, 1968) over the years. Various programs have been in place to aid welfare recipients in gaining needed social services

and help with job search and training needs. According to Chisman and Woodworth (1992), the current program, Job Opportunities and Basic Skills (JOBS), was part of the Family Support Act of 1988. The JOBS program was designed to assist AFDC recipients to become self-sufficient by providing the necessary employment related activities and supportive services. Mandatory components were the following: (1) educational activities (e.g., high school or equivalent education, basic and/or remedial education, or English as a Second Language); (2) job skill training; (3) job readiness activities (e.g., Job Finder's Club, Life Skills classes); and (4) job development and placement activities. The program must also include at least two of the following components: (1) group or individual job search; (2) on-the-job training; (3) work supplementation programs; or (4) community work experience programs (Chisman & Woodworth). Thus, the program was designed not just to help welfare recipients find jobs, but to increase their educational levels and enhance their overall lifestyles.

Furstenberg, Brooks-Gunn, and Morgan (1987) made the following statement:

...there are real life courses characterized by welfare dependency, non-marriage, low education, and high fertility. Those whose life course takes such a trajectory are likely to remain on this path. But if they can escape, if they can alter this trajectory by

getting a stable job, entering a stable marriage, acquiring educational credentials or curtailing subsequent fertility, they are no more likely than others to fall back within this trajectory. Moreover, children benefit as their mother's life situation improves. (p. 128)

Randolph and McCarthy (1991) reported individuals who live in poverty have a low self esteem. The low self esteem results from a feeling of powerlessness and failure to behave in a traditional or "normal" manner based on society's expectations. Cull and Hardy (1973) described people living in poverty as having a "stronger orientation in the present and in short-term perspective rather than in long-term planning and goals" (p. 121). They have a "definite feeling of fatalism and the belief in chances; impulsiveness and general inability to delay immediate gratification or make definite plans for the future" (p. 121-122). They have a "thinking process that could be termed much more concrete in character than abstract" (p. 122). They have:

general feelings of inferiority and an acceptance of authoritarianism; therefore, when an individual who has lived in a poverty environment during the formative years of his growth and development becomes disabled, the reaction is generally substantially different from those who have been reared in a middle-class

environment. (p. 122)

Another important characteristic of families in poverty reported by Cull and Hardy (1973) was that they were in constant crises. Families in poverty were described as having a constant lack of financial stability, an increased amount of stress, children getting into trouble, the lack of or loss of employment, and insufficient nutrition and health care. Cull and Hardy stated, "These constant crises have the effect of draining all energy from the family and its members. Such emotionality takes a high toll in terms of overall ability of a family unit or of an individual" (p. 123).

Sklar (1987) pointed out "that between 25 and 75 percent of all long term recipients, who can be classified as employable, are functionally illiterate and lack essential job skills required by employers" (p. 14). Because so many recipients were found to be functionally illiterate and to lack essential job skills, the Family Support Act of 1988 JOBS program focused not only on work requirements, but also on educational needs which included gaining a high school diploma or its equivalent, basic remedial education, vocational education, and in some cases, post-secondary education (Nightingale, 1989).

Rolle (1977) studied the effectiveness of several delivery systems for occupational information to minority college students from low socioeconomic backgrounds. All

226 of his subjects were low-achieving in high school with academic records and Scholastic Aptitude Test scores showing little or no learning potential. The subjects were Black college freshmen enrolled at two predominantly Black colleges in the south. He used a posttest-only control group design. The treatment consisted of three occupational information delivery systems. The systems were described as the following: (1) career logs - records of experiences, perceptions, and reactions to occupational information; (2) career simulations - job related experiences similar to real life; and (3) written occupational briefs - occupational briefs written by subjects in areas of their vocational interest. By using treatment and control groups, he was able to establish through an analysis of variance at the .05 level of confidence that "career planning experiences and occupational explorations can be beneficial in raising career maturity of individuals from disadvantaged/minority groups" (p. 15).

Bartlett (1968) measured the vocational maturity and personality variables of trainees participating in the Manpower Development Training Act, a program designed to train and retrain the unemployed. The sample consisted of 81 female and 69 male subjects ranging in age from 16 to 21. He utilized the Vocational Development Inventory [(VDI), Crites, 1965]; and through the use of a one-way analysis of variance, he found that those trainees who scored higher on

the VDI also scored higher on the following personality variables: self confidence ($F=5.20$, $p<.01$), achievement ($F=3.88$, $p<.01$), dominance ($F=3.68$, $p<.05$), and autonomy ($F=6.03$, $p<.01$). He also found that those with a higher educational attainment also had a high vocational maturity score ($F=11.21$, $p<.01$). He concluded that the development of vocational behavior was related to the development of mature personality characteristics; and vocational counselors should attempt to facilitate more mature personality characteristics in their counselees.

Race, Sex, Age, Level of Formal Education and Career Maturity

Holland (1981) used a multiple regression analysis to determine the relationships between career maturity and socioeconomic status (SES), race, sex and age in 6th grade students. For a randomly selected sample of 300 students from 22 public schools in Georgia, Holland found SES to be the best predictor of career attitudes ($r=.40$, $p<.01$). The higher the SES, the higher the score on the Career Maturity Inventory - Attitude Scale (CMI-AS). Even though a significant difference ($F=43.96$, $p<.001$) was found between the mean scores of White and Black subjects on the CMI-AS, the author maintained race was not an adequate predictor of career attitudes. When race was paired with SES, a significant multiple correlation coefficient was found ($F=37.24$, $R=.45$, $p<.05$). More specifically, White students

from upper class backgrounds were found to be more career mature, and Black and White students at lower and middle SES had similar career mature attitudes. She did not find sex and age to be significant predictors of career mature attitudes for this adolescent group.

Luzzo (1991) studied the career maturity of 401 undergraduate college students from California State University, Long Beach, in relation to SES and ethnic group. Through a one-way analysis of variance, the researcher found Caucasian-Americans ($M=37.97$) to be significantly more career mature than Filipino ($M=33.54$) and Asian-American ($M=35.76$) students ($F=7.298$, $p<.001$). No significant difference was found for SES. He concluded that current theories of career development and career counseling need to be more applicable to today's ethnically diverse populations.

Lawrence and Brown (1976) used a multiple regression analysis to gain a better understanding of the relationship of many factors including self concept, SES, race and sex to career maturity as measured by the CMI - Attitude Scale and Competence Test. Their 226 subjects were 12th grade students ranging in age from 16 to 19. For the total group, self concept ($r=.59$) and race ($r=.62$) were found to be significant predictors of career maturity at the .01 level. They found White students to be more career mature (for Black males vs. White males, $t=-5.86$, $p<.01$; and for Black

females vs. White females, $t=-6.66$, $p<.01$ on the CMI-AS). No significant differences were found between males and females.

McNair and Brown (1983) and Lee (1984) found similar results in their studies. The authors of these studies investigated ethnic and sex differences in 10th grade students. Multiple regression analysis in both studies confirmed that White students scored higher than non-White students (McNair & Brown, $F=29.08$, $p<.01$; Lee, $F=37.30$, $p<.01$). Lee (1984) did not find a significant F value for males and females; however, McNair and Brown (1983) did find females scored significantly higher than males on career maturity ($F=4.31$, $p<.05$). Lawrence and Brown (1976), McNair and Brown (1983), and Lee (1984) all suggested that career counselors must be more aware of the diverse ethnic populations with which they work.

Herr and Enderlein (1976) examined the differences in mean scores on the CMI among 9th, 10th and 12th grade students and between males and females. Their sample consisted of 1,553 students from three large nonmetropolitan schools in Pennsylvania. Through the use of a 3 X 3 analysis of variance with grade level and school being the factors, the researchers found career maturity did increase incrementally by grade level ($F=46.31$, $p<.001$), but not without other influences such as school effects, curriculum choices, and sex differences. The researchers conducted a 2

X 3 analysis of variance with sex and grade as the factors, and found females displayed more career maturity than males at all grade levels ($F=51.39$, $p<.001$).

Healy, O'Shea, and Crook (1985) investigated the relation of age and career attitudes in 158 students from a metropolitan California state university. This college only admitted students who ranked in the upper 50th percentile of their high school or who had already achieved an associate degree. The subjects' ages ranged from 18 to 30. They found a positive correlation coefficient ($r=.48$, $p<.01$) between career attitudes and age. They also found career attitudes correlated with grade point average ($r=.41$, $p<.01$).

Gladstone and Trimmer (1985) investigated the predictors of success for welfare recipients in the Work Incentive (WIN) program in southern Nevada. This welfare reform program was designed to place welfare recipients in training and employment. Gladstone and Trimmer postulated that there were common elements among welfare recipients who were successful (completed training or entered employment) and among those who were not. The sample consisted of 29 volunteer and 27 mandatory participants, all of whom were female. They had a mean age of 27 and an average education level of 11.7. Ethnically, 59% were Black, 37% were White, 3% were Hispanic, and 1% Asian. All had requested training and all needed it. They were all considered "non-job ready"

due to a lack of work history or current work skills. The researchers did not find school grade completion a good predictor because often times, even high school graduates were found to need adult basic education. They found the average grade level completed was 11.7; however, the average literacy level as measured by the Basic Occupational Literacy Test (BOLT) was at a 6th grade achievement level. Gladstone and Trimmer reported the following:

Personality traits such as responsibility, self-esteem, self-confidence, and independence certainly influence one's success or failure in training or employment.

...The results of the assessment instruments used in this study demonstrate that intelligent and discretionary use of testing results in the vocational counseling process is effective for predicting success or failure in training or employment. (p. 69)

General Intelligence and Career Maturity

Gladstone and Trimmer (1985) obtained a measure of general intelligence from their sample. They administered the General Aptitude Test Battery (GATB) which produced a "G" score, or a measure of general intelligence. The researchers reported the "G" score as having five functional levels with Level 1 being the highest and Level 5 being the lowest. The levels were not defined by the researchers. A definite relationship was found between "G" scores and successful completion of training. Gladstone and Trimmer

reported 100% of the subjects with a "G" score at functional Level 1 successfully completed training, 80% at Level 2, 71% at Level 3, 63% at Level 4, and no subjects completed training when their "G" score was at Level 5. "The average 'G' score of those who completed training was 107; and the average for those who did not complete was 89" (p. 64). The authors concluded the "G" score on the GATB can be utilized in predicting success of welfare recipients in training and employment. They stated "personality traits such as responsibility, self esteem, self confidence, and independence certainly influence one's success or failure in training or employment" (p. 69).

Lawrence and Brown (1976) investigated intelligence as a predictor of career maturity. They found intelligence, or general aptitude, to be correlated with career maturity ($r=.56$, $p<.01$). They stated, "one should not be surprised to find that the less career mature may be less intellectually bright" (p. 50). Conclusions from Lawrence and Brown indicated separate equations should be utilized with different predictors, such as SES and self concept, depending on sex and race; and intelligence, race and sex had a greater effect on career maturity than SES and self concept. They stated "career maturity as measured by the CMI is highly correlated with intelligence test scores" (p. 51).

Palmo and Lutz (1983) studied the performance of

disadvantaged youth on the CMI and the Wechsler Adult Intelligence Scale (WAIS). The sample consisted of 91 high school dropouts and 29 graduates ranging from age 16 to 22. The researchers found those who scored higher on the WAIS also scored higher on the CMI ($r=.51$, $p<.01$). The researchers concluded career maturity and general intelligence were significantly related constructs for disadvantaged populations.

West (1988) looked at the correlation of career maturity and higher academic performance. His subjects were 69 college students; 30 were American Indian, 39 were non-American Indian. Through the use of Pearson product-moment correlations, West found a positive correlation between career maturity and higher academic performance for the total group ($r=.3950$, $p=.030$). Through the use of a t -test, he also found a significant difference between mean career maturity scores of the Indian and non-Indian groups for the whole sample ($t=2.55$, $p=.013$). The author concluded that ethnic minority students have significantly lower career mature attitudes.

Locus of Control and Career Maturity

Rotter (1966) defined locus of control as the degree to which an individual believes his rewards or reinforcements are a result of his actions, or of fate, luck or chance. In other words, an individual who has an internal locus of control would be more personally involved

in his vocational development and a person with an external locus of control would be influenced by others or rely on fate or luck to determine his life course.

Stebbing (1985) studied the effects of locus of control on the career maturity of 61 undergraduate junior and senior women from a large southwestern university. Through regression and correlation analyses, she found locus of control to be a valid predictor of career maturity ($r = -.31$, $p < .002$).

Khan and Alvi (1983), Lokan, Boss, and Patsula (1982), and Thomas and Carpenter (1976) all investigated locus of control in relation to career maturity in high school age students. Even though different instruments were used in each of the research projects, the researchers reached the same conclusions. Individuals with an internal locus of control will generally have a higher level of career maturity.

Gable, Thompson, and Glanstein (1976) also studied locus of control and career maturity. Their sample consisted of 179 volunteer freshmen through senior level female college students from a New England university. Through an analysis of variance, the researchers found women who were more internally controlled were also more career mature ($F = 32.7$, $p < .01$).

Amster and Lazarus (1982) studied the locus of control of disadvantaged high school dropouts after conducting a

comprehensive review of the literature regarding the locus of control of disadvantaged groups. Their review of the literature did not produce much information about the subject, and so, the authors conducted their study to obtain data that could be considered normative. They administered Rotter's I-E Scale to 197 disadvantaged high school dropouts ranging in age from 16 to 21. The group had a mean I-E score 9.95 ($SD=3.1$) with a range from 2 to 19. Females in the group were slightly more external ($M=10.37$, $SD=3.05$) than males ($M=9.53$, $SD=3.14$). The findings indicated no statistically significant difference for I-E mean scores for females and males ($p<.09$), but were consistent with the literature regarding the I-E Scale from Rotter (1966).

Rodriguez and Blocher (1988) compared two methods of increasing career maturity in Puerto Rican college women. They hypothesized that the career maturity of students participating in the "modified Adkins Career Choice Modular Program" would be higher and their locus of control more internal than that of students who participated in an alternative career program or a control group. Their investigation was for a sample of 66 Puerto Rican college freshmen women who were academically and economically disadvantaged. Through the use of a multivariate analysis of covariance the researchers found a significant main effect for treatment at $p=.008$. In other words, traditional career development interventions produced increases in

career mature attitudes, and changes in locus of control also resulted from these interventions. According to Rodriguez and Blocher, "As people come to believe that they can control their environments and their own future, career attitudes may also become more mature" (p. 279).

Summary

The review of the literature assembled here covers three major areas: (1) an overall view of career maturity; (2) a description of welfare recipients and the welfare reform program currently in existence; and (3) studies of the various predictors of career maturity in different populations related to race, sex, age, level of formal education, general intelligence, and locus of control. Just a few of these studies were similar in nature to the present study. Bartlett (1968) studied the career maturity of manpower trainees. His subjects ranged in age from 16 to 21, and were part of a low-income group, but were not necessarily welfare recipients. Gable, Thompson, and Glanstein (1976) researched the career maturity of women, but limited their study to college freshmen through seniors. Rodriguez and Blocher's (1988) study looked at the career maturity of an economically disadvantaged group of women, but again, the group was enrolled in college. Gladstone and Trimmer (1985) looked at the predictors of success for welfare recipients involved in a welfare program; however, they did not look specifically at the career maturity of

welfare recipients. Most previous research of career maturity has been conducted on adolescents or college-age groups. Overall, the results of the studies reviewed indicated an internal locus of control and a higher general intelligence to be consistent predictors of career maturity regardless of race, sex, age, or level of formal education. In terms of race, sex, age, and level of formal education, the results are less conclusive.

In recent years, welfare reform has been a major topic of discussion within the nation. Many authors of the studies cited in this literature review offered the following suggestions for career development programs: (1) counselors need to be more aware of the diverse cultural populations with which they work, (2) counselors need to encourage autonomy and assertiveness in their counselees in order to bring about a more internal locus of control, and (3) individuals from low socioeconomic backgrounds can increase their vocational maturity by receiving occupational information through career planning experiences.

Statement of the Problem

The purpose of the researcher was to investigate the career maturity of welfare recipients.

Rationale and Importance of the Research

The author of the present study researched the special population of welfare recipients with whom many counselors, social workers, and sometimes educational personnel find

themselves working. It is essential for these professionals to have knowledge of techniques and programs that work for welfare recipients and which ones do not. Vocational counselors may need to develop career development programs for welfare recipients. With the results of this study, they can increase their knowledge base from which to build the foundation of such a program.

The current literature available offered little substantial knowledge specifically about career maturity and welfare recipients. The author of the present study incorporated the population of welfare recipients into the already existing body of knowledge regarding career maturity. The author also attempted to clarify race, sex, age, level of formal education, and career maturity for this special population.

Results of the present study may be used by legislators who work on the problem of welfare reform. The factors identified with career maturity in welfare recipients can then be emphasized in future programs. Vocational counselors, social workers, and educational personnel who work in welfare programs, may also find the results of this study helpful. The professionals in the human service field will be able to address specific issues found to be relevant in working with welfare recipients. The following are examples: promoting more internal locus of control and remedial education programs that include enhancements to

develop more mature career attitudes.

The results of the present study provided information pertaining to the following questions:

1. Is there an association between welfare recipients' race and career maturity?
2. Is there an association between welfare recipients' sex and career maturity?
3. Is there an association between welfare recipients' age and career maturity?
4. Is there an association between welfare recipients' level of formal education and career maturity?
5. Is there an association between welfare recipients' general intelligence and career maturity?
6. Is there an association between welfare recipients' locus of control and career maturity?

Composite Null Hypotheses

Each hypothesis was tested at the .05 level of significance.

1. The differences among the mean Career Maturity Inventory - Attitude Scale Counseling Form B-1 scores according to level of formal education, general intelligence, and locus of control will not be statistically significant.

2. The differences among the mean Career Maturity Inventory - Attitude Scale Counseling Form B-1 scores according to level of formal education, general

intelligence, and age will not be statistically significant.

3. The differences among the mean Career Maturity Inventory - Attitude Scale Counseling Form B-1 scores according to level of formal education, locus of control, and age will not be statistically significant.

4. The differences among the mean Career Maturity Inventory - Attitude Scale Counseling Form B-1 scores according to general intelligence, locus of control, and age will not be statistically significant.

5. The differences among the mean Career Maturity Inventory - Attitude Scale Counseling Form B-1 scores according to race, sex, and general intelligence will not be statistically significant.

Independent Variables and Rationale

The six independent variables investigated were: (1) race, (2) sex, (3) age, (4) level of formal education, (5) general intelligence, and (6) locus of control. The rationale for the selection of these variables was: (a) no studies were located which dealt specifically with the career maturity of welfare recipients (most of the research regarding career maturity utilized adolescents and college students), (b) many of the studies found were not current, and (c) from the studies reviewed, few were conclusive in determining the effects of race, sex, age, and level of formal education on career maturity.

Definitions of Variables

Independent Variables

The information for the first four independent variables was self reported on the answer sheet for the General Aptitude Test Battery (GATB). Of the remaining two, general intelligence was measured by the GATB; and locus of control was self reported on Rotter's I-E Scale. The following variables were investigated:

1. race - 3 levels (determined post hoc),
 level one, White,
 level two, Black, and
 level three, Hispanic;
2. sex - 2 levels,
 level one, male, and
 level two, female;
3. age - 3 levels, (determined post hoc),
 level one, age 18 to 24,
 level two, age 25 to 31, and
 level three, age 32 to 48;
4. level of formal education - 3 levels (determined post hoc),
 level one, less than high school diploma,
 level two, high school diploma or GED, and
 level three, more than high school diploma;
5. general intelligence - 4 levels (determined post hoc),

- level one, G = 80 or below,
- level two, G = 81 to 90,
- level three, G = 91 to 100, and
- level four, G = 101 to 120; and
- 6. locus of control - 2 levels,
 - level one, internal - 0 to 10, and
 - level two, external - 11 to 23.

Dependent Variables

Scores from the following five scales of the Career Maturity Inventory - Attitude Scale Counseling Form B-1 were employed as the dependent variables (five items on the first four scales and eight on the fifth scale were experimental and not used in scoring):

- 1. Decisiveness - 15 items, possible scores are 0-10;
- 2. Involvement - 15 items, possible scores are 0-10;
- 3. Independence - 15 items, possible scores are 0-10;
- 4. Orientation - 15 items, possible scores are 0-10;

and

- 5. Compromise - 15 items, possible scores are 0-7.

Limitations of the Study

The following conditions might have affected the results of the present study:

- 1. the sample was not random;
- 2. the subjects came from one geographical area;
- 3. the study was limited to subjects from a single time interval;

4. most of the information was self reported; and
5. sample size.

Methodology

Setting

This study was conducted on welfare recipients who were determined to be eligible for the Job Opportunity and Basic Skills (JOBS) program in a midwestern state. The geographical location included one major city with a population of approximately 310,000, and several smaller communities. The economic base of the area was supported mainly by manufacturing; service (e.g., health care); wholesale and retail trade; transportation, communication and public utilities; finance, insurance and real estate; and construction. In November of 1993, the area had an unemployment rate of 5.9% which was higher than the previous year when it was at 4.6% (Kansas Department of Human Resources, December, 1993). This was due to massive layoffs in 1993 at one of the major aircraft manufacturing plants.

Subjects

The subjects were selected based on their eligibility for the JOBS program. To be eligible for the JOBS program, one must be receiving AFDC (i.e., cash assistance) from the State Department of Social and Rehabilitation Services (SRS). The subjects were identified by their JOBS program casemanagers, and then notified by the casemanagers to report to the researcher's office for a pre-orientation

vocational assessment. Child care assistance and a transportation allowance was made available to those subjects who requested it from the SRS JOBS program. The sample consisted of 83 welfare recipients; 59 females, 24 males; and 64% were White, 30% were Black, and 6% were Hispanic. The subjects ranged in age from 18 to 48.

Instruments

Three instruments were used. The answer sheet from the General Aptitude Test Battery (GATB) was used to obtain information regarding race, sex, age, and level of formal education. The GATB was used to gain a measure of general intelligence. The Rotter I-E Scale was used to obtain a measure of a generalized locus of control. The Career Maturity Inventory - Attitude Scale Counseling Form B-1 was used as a measure of career maturity.

General Aptitude Test Battery. The General Aptitude Test Battery (GATB) was used to measure general intelligence. This instrument was developed by the United States Employment Service (USES) and has been used by state employment offices since 1947. It was normed on a sample that consisted of 4000 people representative of the working population of the 1940s which was oriented toward blue-collar jobs. The GATB measures 9 aptitudes. They are the following: general intelligence (G), verbal (V), numerical (N), spatial perception (S), clerical perception (Q), form perception (P), motor coordination (K), finger dexterity

(F), and manual dexterity (M).

The "G" score is the measure of general intelligence, or general learning ability. It is defined as the ability to reason and make judgements, and is essentially a measure of overall academic ability. It is a combination score obtained from three tests: the spatial perception, verbal ability, and arithmetic reasoning tests. The mean for the "G" score is 100 with a standard deviation of 20. The "G" score correlates highly with both the "V" ($r=.84$) and the "N" ($r=.86$) scores (no p value was reported). The "G" score may be used as a guideline in predicting success in training. A minimum "G" score of 100 may predict success for junior college; 110 for a four-year college; and 120 for graduate or professional school (U.S. Department of Labor, Manpower Administration, 1979).

The General Aptitude Test Battery is a widely known and used multiple aptitude battery and has been well established with numerous studies of validity and reliability. One study, conducted in 1954 by the Pennsylvania Agency, had a sample which consisted of 95 males and 85 females. Subjects were initially tested on Form A of the GATB, and then retested on Form B one week later. The correlation coefficient for the "G" score was reported at $r=.92$ for males, and $r=.90$ for females. Another study was conducted between 1956 and 1958 and included data from five states. The total sample consisted of 168 males and 155 females.

Individuals were initially tested on Form B of the GATB, and then retested on the same form two weeks later. The correlation coefficient reported for the "G" score was $r=.94$ for both males and females (U.S. Department of Labor, Manpower Administration, 1979).

Rotter's I-E Scale. Rotter's I-E scale was used to measure the construct of locus of control. This scale was devised by Rotter (1966), and, according to Stebbing (1985), is one of the most widely used instruments for measuring a person's internal or external orientation. The I-E scale is a forced-choice, 29-item, self-report instrument. The 29 items include 6 filler statements to make the purpose of the test remain somewhat unclear to the test taker. The score is reported in terms of the total number of external choices and can range from 0 to 23. Therefore, a low score indicates a more internal locus of control, and a high score signifies a more external orientation. The scale's internal consistency has been determined by a Kuder-Richardson reliability coefficient of $r=.73$; and its test-retest reliability coefficient for one month has been reported at $r=.72$ (Rotter, 1966).

Rotter (1966) reported correlation coefficients between each item of the instrument and total score. These values were cited in Appendix A.

Career Maturity Inventory - Attitude Scale Counseling Form B-1. The Career Maturity Inventory - Attitude Scale

Counseling Form B-1 was used to measure career maturity. This instrument was constructed by Crites (1978a) and, according to Palmo and Lutz (1983), is one of the most widely used measures of career maturity. Form B-1 of the attitude scale consists of 75 true-false items, 50 of which are from the original Form A-1, and 25 are new items. Form B-1 consists of the following five scales: Decisiveness, Involvement, Independence, Orientation, and Compromise. Possible scores on each of the scales is 0 to 10, except on the Compromise scale. Possible scores are 0 to 7 for the Compromise scale. It takes about 20 minutes to administer Form B-1 of the Career Maturity Inventory - Attitude Scale. This instrument was designed to elicit "the feelings, the subjective reactions, the dispositions that the individual has toward making a career choice and entering the world of work" (Crites, 1978a, p. 3). Crites (1978b) reported Kuder-Richardson (KR) 20 reliability coefficients which ranged from .72 to .90. Internal consistency coefficients for the five sub-scales on Form B-1 were the following: Decisiveness, $r=.67$; Involvement, $r=.62$; Independence, $r=.71$; Orientation, $r=.72$; and Compromise, $r=.50$ (1978b).

Design

A status survey factorial design was employed. The independent variables utilized were: (a) race, (b) sex, (c) age, (d) level of formal education, (e) general intelligence, and (f) locus of control. The dependent

variables were scores from the following five scales of the Career Maturity Inventory - Attitude Scale Counseling Form B-1: Decisiveness, Involvement, Independence, Orientation, and Compromise. The sample consisted of 83 subjects; 59 were female, 24 were male.

The following design was used with each composite null hypothesis:

composite null hypothesis number 1, a $3 \times 4 \times 2$ factorial design;

composite null hypothesis number 2, a $3 \times 4 \times 3$ factorial design;

composite null hypothesis number 3, a $3 \times 2 \times 3$ factorial design;

composite null hypothesis number 4, a $4 \times 2 \times 3$ factorial design; and

composite null hypothesis number 5, a $3 \times 2 \times 4$ factorial design.

McMillan and Schumacher (1984) cited 10 threats to internal validity. The 10 threats were dealt with in the following ways:

1. history - did not pertain because the present study was a status survey;

2. selection - all welfare recipients asked to participate who came and completed instruments were included;

3. statistical regression - did not pertain because

the present study was a status survey;

4. testing - did not pertain because the present study was a status survey;

5. instrumentation - did not pertain because the present study was a status survey;

6. mortality - did not pertain because the present study was a status survey;

7. maturation - did not pertain because the present study was a status survey;

8. diffusion of treatment - did not pertain because the present study was a status survey;

9. experimenter bias - the same oral instructions were given by the researcher to all groups during the administration of the instruments and no treatment was administered; and

10. statistical conclusion - two mathematical assumptions were violated (random sample and equal numbers of subjects in cells). The general linear model was used to correct for unequal numbers of subjects in cells, and the researcher did not project beyond the statistical procedures employed.

McMillan and Schumacher (1984) cited 2 threats to external validity. The 2 threats were dealt with in the following ways:

1. population external validity - the sample was not random; therefore, the results should be generalized only to

groups similar to the sample; and

2. ecological external validity - the data were collected by standard procedures and there was no treatment.

Data Collection Procedures

The researcher contacted the director of the Employment Preparation Services (EPS), which administers the Job Opportunities and Basic Skills (JOBS) program, to request permission to use data from pre-orientation vocational assessment sessions conducted with welfare recipients who were determined to be eligible for the JOBS program (Appendix B). The names of those welfare recipients who were determined eligible for the JOBS program were placed on schedules for the pre-orientation vocational assessment sessions by their JOBS program casemanager. The recipients whose names were on the schedules were notified by their SRS casemanagers to report to the researcher's office on a specified date and time (Appendix C).

The researcher administered the instruments in the same order to each of the groups of recipients (Appendix D). The size of the groups varied from 3 to 10 subjects. The subjects were informed at a later time that parts of the assessment were used for research purposes. The researcher collected the answer sheets for each of the assessments, and then the answer sheets for the GATB were mailed to the State Department of Human Resources for machine scoring. When the scored aptitude tests had been returned to the researcher,

all data were assembled, necessary coding was made, and the data were sent to the Fort State University Computer Center for data analysis.

Research Procedures

The following steps were implemented in the present study:

1. a research topic was selected;
2. related literature was obtained through data base searches (i.e., ERIC, PSYCHLIT, Social Science Index, and Thesis Abstracts from Ablah Library at The Wichita State University, Wichita, Kansas);
3. resources were reviewed;
4. instruments were selected;
5. permission was obtained from the Department of Social and Rehabilitation Services to utilize data generated from pre-orientation vocational assessment sessions conducted with welfare recipients in the JOBS program;
6. the Career Maturity Inventory - Attitude Scale Counseling Form B-1 was obtained from Chronical Guidance Publishers in Moravia, NY.
7. research proposal was written;
8. proposal was defended before the thesis committee;
9. data were collected;
10. data were analyzed;
11. final document was written;
12. completed document was defended before the thesis

committee; and

13. final editing of the thesis.

Data Analysis

The following were compiled:

1. appropriate descriptive statistics;
2. three-way analysis of variance (general linear model);
3. Bonferroni (Dunn) t test for means; and
4. Duncan's multiple-range test for means.

Results

The purpose of the researcher was to investigate the career maturity of welfare recipients. The following independent variables were investigated: race, sex, age, level of formal education, general intelligence, and locus of control. The dependent variables were scores from the following five scales of the Career Maturity Inventory - Attitude Scale Counseling Form B-1: Decisiveness, Involvement, Independence, Orientation, and Compromise. The sample consisted of 83 welfare recipients who were eligible for the Job Opportunities and Basic Skills (JOBS) program in a midwestern state. Five composite null hypotheses were tested at the .05 level of significance employing a three-way analysis of variance (general linear model). A status survey factorial design was employed. The following design was used with each composite null hypothesis:

composite null hypothesis number 1, a 3 X 4 X 2 factorial design;

composite null hypothesis number 2, a 3 X 4 X 3 factorial design;

composite null hypothesis number 3, a 3 X 2 X 3 factorial design;

composite null hypothesis number 4, a 4 X 2 X 3 factorial design; and

composite null hypothesis number 5, a 3 X 2 X 4 factorial design.

The results section was organized according to composite null hypotheses for ease of reference. Information pertaining to each composite null hypothesis was presented in a common format for ease of comparison.

It was hypothesized in composite null hypothesis number 1 that the differences among the mean Career Maturity Inventory - Attitude Scale Counseling Form B-1 scores according to level of formal education, general intelligence, and locus of control would not be statistically significant. Information pertaining to composite null hypothesis number 1 was presented in Table 1. The following were cited in Table 1: variables, group sizes, means, standard deviations, F values, and p levels.

Table 1: A Comparison of Mean Career Maturity Inventory Attitude Scale Counseling Form B-1 Scores for Welfare Recipients According to Level of Formal Education, General Intelligence, and Locus of Control Employing a Three-Way Analysis of Variance

Variable	n	M [*]	S	F value	p level
<u>Decisiveness</u> ^{**}					
<u>Formal Education (A)</u>					
< H.S. diploma	38	5.2	2.02		
H.S. diploma/GED	35	5.0	2.15	0.23	.7984
> H.S. diploma	10	5.6	2.67		
<u>General Intelligence (B)</u>					
80 or below	16	4.8	1.88		
81 to 90	24	4.8	2.40		
91 to 100	26	5.6	2.06	1.52	.2169
101 to 120	17	5.4	2.15		
<u>Locus of Control (C)</u>					
Internal	40	5.8	2.18		
External	43	4.6	1.96	0.77	.3848
<u>Interactions</u>					
A X B				1.59	.1770
A X C				2.14	.1260
B X C				1.62	.1941
A X B X C				0.91	.4662

(continued)

Table 1 (continued)

Variable	n	M	S	F value	p level
<u>Involvement</u>					
<u>Formal Education (A)</u>					
< H.S. diploma	38	8.1	1.73		
H.S. diploma/GED	35	8.6	1.70	0.90	.4131
> H.S. diploma	10	8.6	1.51		
<u>General Intelligence (B)</u>					
80 or below	16	7.3	2.47		
81 to 90	24	8.3	1.43		
91 to 100	26	6.7	1.26	1.42	.2450
101 to 120	17	9.1	1.27		
<u>Locus of Control (C)</u>					
Internal	40	8.8	1.32		
External	43	8.1	1.93	3.76	.0571
<u>Interactions</u>					
A X B				1.21	.3158
A X C				0.61	.5476
B X C				3.28	.0266
A X B X C				2.80	.0334

(continued)

Table 1 (continued)

Variable	n	M	S	F value	p level
<u>Independence</u>					
<u>Formal Education (A)</u>					
< H.S. diploma	38	8.8	1.69		
H.S. diploma/GED	35	8.7	1.38	0.33	.7182
> H.S. diploma	10	8.9	0.99		
<u>General Intelligence (B)</u>					
80 or below	16	8.4	1.63		
81 to 90	24	9.2	1.37		
91 to 100	26	8.7	1.61	1.07	.3684
101 to 120	17	8.8	1.25		
<u>Locus of Control (C)</u>					
Internal	40	9.0	1.31		
External	43	8.6	1.62	2.37	.1285
<u>Interactions</u>					
A X B				0.54	.7461
A X C				0.07	.9344
B X C				2.44	.0727
A X B X C				0.88	.4803

(continued)

Table 1 (continued)

Variable	n	M	S	F value	p level
<u>Orientation</u>					
<u>Formal Education (A)</u>					
< H.S. diploma	38	6.2	2.31		
H.S. diploma/GED	35	6.7	2.17	0.45	.6408
> H.S. diploma	10	7.3	2.45		
<u>General Intelligence (B)</u>					
80 or below	16	5.6	2.58		
81 to 90	24	6.6	1.81		
91 to 100	26	7.0	2.51	0.82	.4904
101 to 120	17	6.6	2.06		
<u>Locus of Control (C)</u>					
Internal	40	7.1	2.26		
External	43	6.0	2.17	2.86	.0957
<u>Interactions</u>					
A X B				1.66	.1573
A X C				0.40	.6690
B X C				1.32	.2763
A X B X C				0.70	.5959

(continued)

Table 1 (continued)

Variable	n	M	S	F value	p level
<u>Compromise</u>					
<u>Formal Education (A)</u>					
< H.S. diploma	38	4.9	1.54		
H.S. diploma/GED	35	5.0	1.20	0.05	.9547
> H.S. diploma	10	5.3	1.83		
<u>General Intelligence (B)</u>					
80 or below	16	4.4	1.50		
81 to 90	24	4.8	1.69		
91 to 100	26	5.4	1.14	1.22	.3115
101 to 120	17	5.2	1.24		
<u>Locus of Control (C)</u>					
Internal	40	5.3	1.33		
External	43	4.7	1.47	0.15	.7019
<u>Interactions</u>					
		A X B		0.84	.5250
		A X C		1.86	.1648
		B X C		0.80	.4994
		A X B X C		0.62	.6498

* The larger the value, the greater the career maturity.

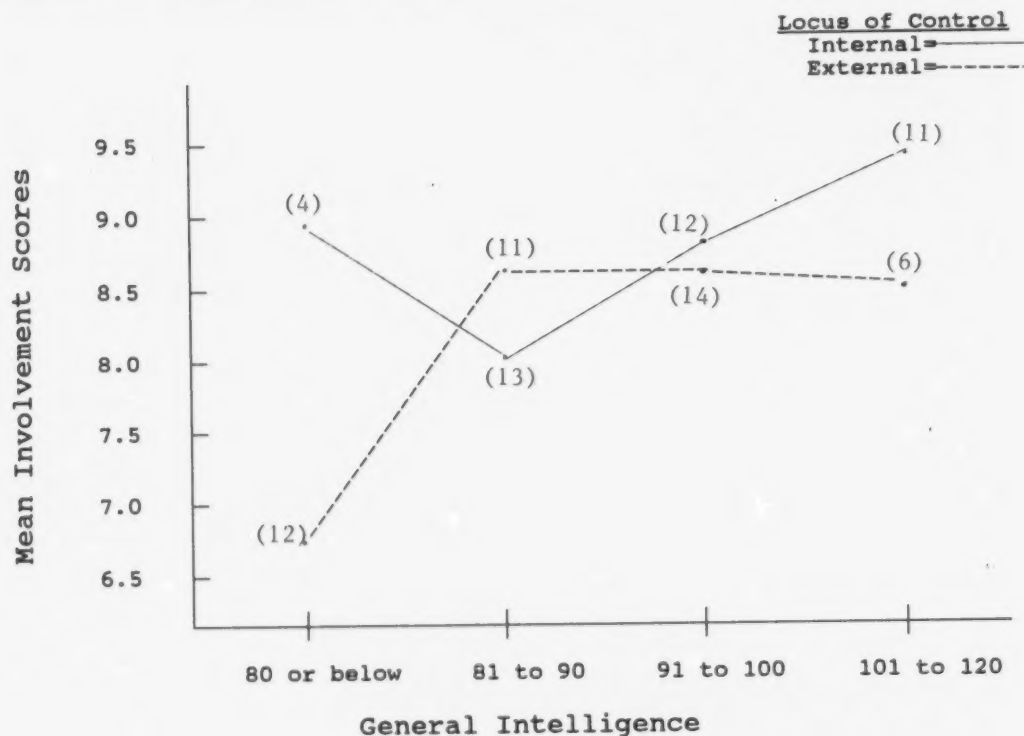
** Possible scores: Decisiveness (0-10), Involvement (0-10), Independence (0-10), Orientation (0-10), and Compromise (0-7).

Two of the 35 p values were statistically significant at the .05 level; therefore, the null hypotheses for these comparisons were rejected. The statistically significant comparisons were for interactions. The following interactions were statistically significant:

1. the independent variables general intelligence and locus of control for the dependent variable Involvement, and
2. the independent variables formal education, general intelligence, and locus of control for the dependent variable Involvement.

The interaction between the independent variables general intelligence and locus of control for the dependent variable Involvement was depicted in a profile plot. Figure 1 contains mean Involvement scores and curves for locus of control.

Figure 1: The Interaction Between the Independent Variables General Intelligence and Locus of Control for the Dependent Variable Involvement



The interaction between the independent variables general intelligence and locus of control for the dependent variable Involvement was disordinal. The results cited in Figure 1 indicated the following:

1. individuals with internal locus of control and general intelligence of 101 to 120 had numerically the largest mean Involvement scores of any subgroup, and
2. individuals with external locus of control and general intelligence of 80 or below had numerically the

smallest mean Involvement scores of any subgroup.

The interaction among the independent variables formal education, general intelligence, and locus of control for the dependent variable Involvement was not depicted in a profile plot. The interaction was not presented in a figure due to the sample size and the nature of the data.

It was hypothesized in composite null hypothesis number 2 that the differences among the mean Career Maturity Inventory - Attitude Scale Counseling Form B-1 scores according to level of formal education, general intelligence, and age would not be statistically significant. Information pertaining to composite null hypothesis number 2 was presented in Table 2. The following were cited in Table 2: variables, group sizes, means, standard deviations, F values, and p levels.

Table 2: A Comparison of Mean Career Maturity Inventory Attitude Scale Counseling Form B-1 Scores for Welfare Recipients According to Level of Formal Education, General Intelligence, and Age Employing a Three-Way Analysis of Variance

Variable	n	M*	S	F value	p level
<u>Decisiveness**</u>					
<u>Formal Education (A)</u>					
< H.S. diploma	38	5.2	2.02		
H.S. diploma/GED	35	5.0	2.15	0.17	.8407
> H.S. diploma	10	5.6	2.67		
<u>General Intelligence (B)</u>					
80 or below	16	4.8	1.88		
81 to 90	24	4.8	2.40		
91 to 100	26	5.6	2.06	0.27	.8501
101 to 120	17	5.4	2.15		
<u>Age (D)</u>					
18 to 24	33	4.8	2.17		
25 to 31	32	5.2	2.24	0.36	.7014
32 to 48	18	5.7	1.87		
<u>Interactions</u>					
A X B				0.65	.6624
A X D				1.94	.1178
B X D				1.06	.3985
A X B X D				0.55	.7666

(continued)

Table 2 (continued)

Variable	n	M	S	F value	p level
<u>Involvement</u>					
<u>Formal Education (A)</u>					
< H.S. diploma	38	8.1	1.73		
H.S. diploma/GED	35	8.6	1.70	0.85	.4348
> H.S. diploma	10	8.6	1.51		
<u>General Intelligence (B)</u>					
80 or below	16	7.3	2.47		
81 to 90	24	8.3	1.43		
91 to 100	26	8.7	1.26	1.28	.2901
101 to 120	17	9.1	1.27		
<u>Age (D)</u>					
18 to 24	33	8.4	1.76		
25 to 31	32	8.4	1.44	0.95	.3941
32 to 48	18	8.4	2.03		
<u>Interactions</u>					
A X B				0.17	.9720
A X D				1.15	.3410
B X D				0.14	.9905
A X B X D				1.38	.2378

(continued)

Table 2 (continued)

Variable	n	M	S	F value	p level
<u>Independence</u>					
<u>Formal Education (A)</u>					
< H.S. diploma	38	8.8	1.69		
H.S. diploma/GED	35	8.7	1.38	0.07	.9316
> H.S. diploma	10	8.9	0.99		
<u>General Intelligence (B)</u>					
80 or below	16	8.4	1.63		
81 to 90	24	9.2	1.37		
91 to 100	26	8.7	1.61	0.72	.5467
101 to 120	17	8.8	1.25		
<u>Age (D)</u>					
18 to 24	33	8.9	1.54		
25 to 31	32	8.8	1.52	0.42	.6594
32 to 48	18	8.7	1.36		
<u>Interactions</u>					
A X B				0.27	.9259
A X D				0.28	.8916
B X D				0.60	.7266
A X B X D				0.74	.6171

(continued)

Table 2 (continued)

Variable	n	M	S	F value	p level
<u>Orientation</u>					
<u>Formal Education (A)</u>					
< H.S. diploma	38	6.2	2.31		
H.S. diploma	35	6.7	2.17	0.32	.7305
> H.S. diploma	10	7.3	2.45		
<u>General Intelligence (B)</u>					
80 or below	16	5.6	2.58		
81 to 90	24	6.6	1.81		
91 to 100	26	7.0	2.51	1.55	.2124
101 to 120	17	6.6	2.06		
<u>Age (D)</u>					
18 to 24	33	6.2	2.33		
25 to 31	32	6.8	2.13	0.09	.9120
32 to 48	18	6.9	2.39		
<u>Interactions</u>					
A X B				1.79	.1302
A X D				1.60	.1872
B X D				0.90	.4994
A X B X D				1.15	.3488

(continued)

Table 2 (continued)

Variable	n	M	S	F value	p level
<u>Compromise</u>					
<u>Formal Education (A)</u>					
< H.S. diploma	38	4.9	1.54		
H.S. diploma/GED	35	5.0	1.20	0.02	.9818
> H.S. diploma	10	5.3	1.83		
<u>General Intelligence (B)</u>					
80 or below	16	4.4	1.50		
81 to 90	24	4.8	1.69		
91 to 100	26	5.4	1.14	1.10	.3560
101 to 120	17	5.2	1.24		
<u>Age (D)</u>					
18 to 24	33	4.9	1.35		
25 to 31	32	5.1	1.50	0.25	.7809
31 to 48	18	4.9	1.51		
<u>Interactions</u>					
A X B				0.50	.7747
A X D				0.84	.5066
B X D				0.32	.9254
A X B X D				0.30	.9343

* The larger the value, the greater the career maturity.

** Possible scores: Decisiveness (0-10), Involvement (0-10), Independence (0-10), Orientation (0-10), and Compromise (0-7).

None of the 35 p values were statistically significant at the .05 level; therefore, the null hypotheses for these comparisons were retained. The results cited in Table 2 indicated no associations between independent and dependent variables.

It was hypothesized in composite null hypothesis number 3 that the differences among the mean Career Maturity Inventory - Attitude Scale Counseling Form B-1 scores according to level of formal education, locus of control, and age would not be statistically significant. Information pertaining to composite null hypothesis number 3 was presented in Table 3. The following were cited in Table 3: variables, group sizes, means, standard deviations, F values, and p levels.

Table 3: A Comparison of Mean Career Maturity Inventory Attitude Scale Counseling Form B-1 Scores for Welfare Recipients According to Level of Formal Education, Locus of Control, and Age Employing a Three-Way Analysis of Variance

Variable	n	$\bar{M}^*$	S	F value	p level
<u>Decisiveness**</u>					
<u>Formal Education (A)</u>					
< H.S. diploma	38	5.2	2.02		
H.S. diploma/GED	35	5.0	2.15	0.56	.5744
> H.S. diploma	10	5.6	2.67		
<u>Locus of Control (C)</u>					
Internal	40	5.8	2.18		
External	43	4.6	1.96	1.30	.2591
<u>Age (D)</u>					
18 to 24	33	4.8	2.17		
25 to 31	32	5.2	2.24	0.12	.8846
32 to 48	18	5.7	1.87		
<u>Interactions</u>					
A X C				0.72	.4903
A X D				2.61	.0435
C X D				1.31	.2757
A X C X D				1.11	.3501

(continued)

Table 3 (continued)

Variable	n	M	S	F value	p level
<u>Involvement</u>					
<u>Formal Education (A)</u>					
< H.S. diploma	38	8.1	1.73		
H.S. diploma/GED	35	8.6	1.70	0.50	.6077
> H.S. diploma	10	8.6	1.51		
<u>Locus of Control (C)</u>					
Internal	40	8.8	1.32		
External	43	8.1	1.93	1.60	.2110
<u>Age (D)</u>					
18 to 24	33	8.4	1.76		
25 to 31	32	8.4	1.44	0.68	.5090
32 to 48	18	8.4	2.03		
<u>Interactions</u>					
A X C				0.07	.9370
A X D				1.38	.2501
C X D				0.01	.9882
A X C X D				0.40	.7566

(continued)

Table 3 (continued)

Variable	<u>n</u>	<u>M</u>	<u>S</u>	<u>F</u> value	<u>p</u> level
<u>Independence</u>					
<u>Formal Education (A)</u>					
< H.S. diploma	38	8.8	1.69		
H.S. diploma/GED	35	8.7	1.38	0.08	.9241
> H.S. diploma	10	8.9	0.99		
<u>Locus of Control (C)</u>					
Internal	40	9.0	1.31		
External	43	8.6	1.62	0.21	.6459
<u>Age (D)</u>					
18 to 24	33	8.9	1.54		
25 to 31	32	8.8	1.52	0.61	.5479
32 to 48	18	8.7	1.36		
<u>Interactions</u>					
A X C				1.19	.3094
A X D				0.15	.9624
C X D				0.22	.8042
A X C X D				0.96	.4151

(continued)

Table 3 (continued)

Variable	n	M	S	F value	p level
<u>Orientation</u>					
<u>Formal Education (A)</u>					
< H.S. diploma	38	6.2	2.31		
H.S. diploma/GED	35	6.7	2.17	1.97	.1472
> H.S. diploma	10	7.3	2.45		
<u>Locus of Control (C)</u>					
Internal	40	7.1	2.26		
External	43	6.0	2.17	2.04	.1577
<u>Age (D)</u>					
18 to 24	33	6.2	2.33		
25 to 31	32	6.8	2.13	0.32	.7253
32 to 48	18	6.9	2.39		
<u>Interactions</u>					
A X C				0.40	.6693
A X D				1.21	.3144
C X D				0.66	.5180
A X C X D				0.12	.9484

(continued)

Table 3 (continued)

Variable	n	M	S	F value	p level
<u>Compromise</u>					
<u>Formal Education (A)</u>					
< H.S. diploma	38	4.9	1.54		
H.S. diploma/GED	35	5.0	1.20	0.55	.5811
> H.S. diploma	10	5.3	1.83		
<u>Locus of Control (C)</u>					
Internal	40	5.3	1.33		
External	43	4.7	1.47	0.17	.6778
<u>Age (D)</u>					
18 to 24	33	4.9	1.35		
25 to 31	32	5.1	1.50	0.45	.6372
32 to 48	18	4.9	1.51		
<u>Interactions</u>					
	A X C			1.36	.2625
	A X D			1.90	.1202
	C X D			0.27	.7632
	A X C X D			1.51	.2213

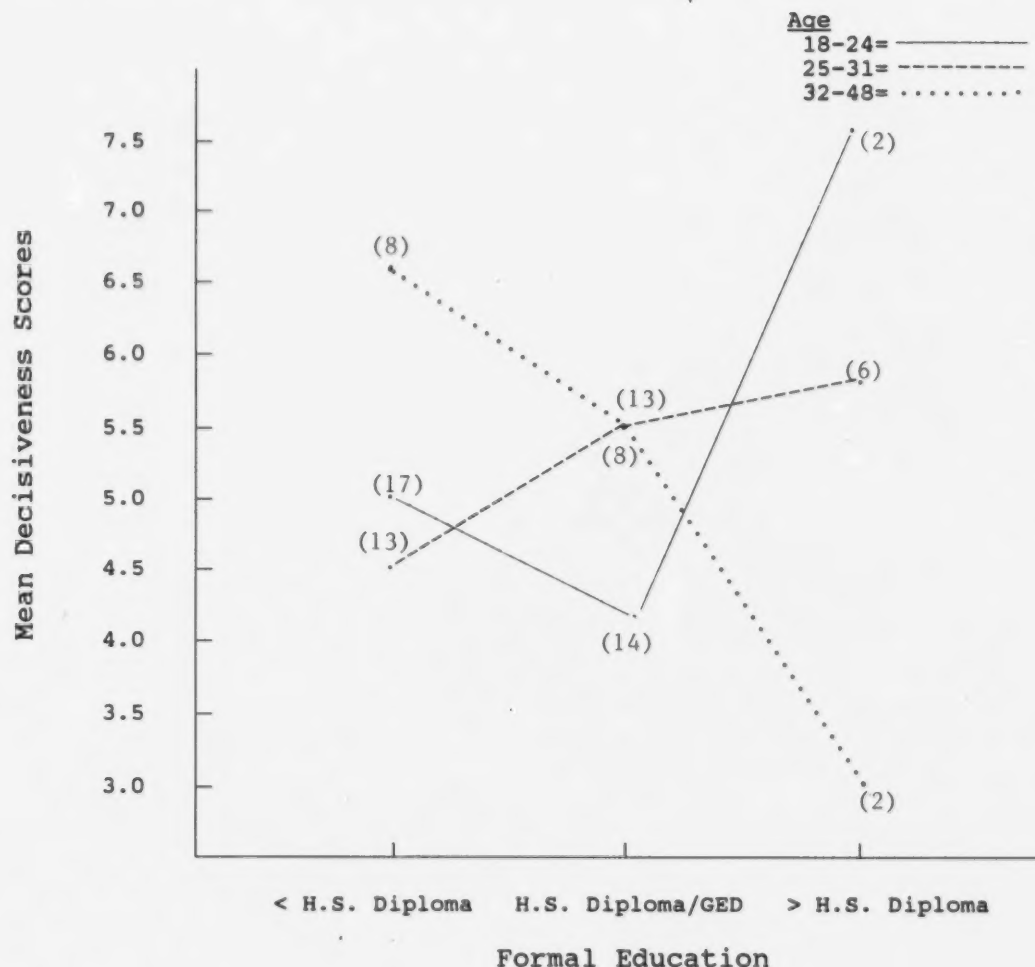
* The larger the value, the greater the career maturity.

** Possible scores: Decisiveness (0-10), Involvement (0-10), Independence (0-10), Orientation (0-10), and Compromise (0-7).

One of the 35 p values was statistically significant at the .05 level; therefore, the null hypothesis for this comparison was rejected. The statistically significant comparison was for the interaction between independent variables formal education and age for the dependent variable Decisiveness.

The interaction between independent variables formal education and age for the dependent variable Decisiveness was depicted in a profile plot. Figure 2 contains mean Decisiveness scores and curves for age.

Figure 2: The Interaction Between the Independent Variable Formal Education and Age for the Dependent Variable Decisiveness



The interaction between the independent variables formal education and age for the dependent variable Decisiveness was disordinal. The results cited in Figure 2 indicated the following:

1. individuals age 18 to 24 with formal education of

more than a high school diploma had numerically the largest mean Decisiveness score of any subgroup, and

2. individuals age 32 to 48 with formal education of more than a high school diploma had numerically the smallest mean Decisiveness score of any subgroup.

It was hypothesized in composite null hypothesis number 4 that the differences among the mean Career Maturity Inventory - Attitude Scale Counseling Form B-1 scores according to level of general intelligence, locus of control, and age would not be statistically significant. Information pertaining to composite null hypothesis number 4 was presented in Table 4. The following were cited in Table 4: variables, group sizes, means, standard deviations, F values, and p levels.

Table 4: A Comparison of Mean Career Maturity Inventory Attitude Scale Counseling Form B-1 Scores for Welfare Recipients According to General Intelligence, Locus of Control, and Age Employing a Three-Way Analysis of Variance

Variable	n	M [*]	S	F value	p level
<u>Decisiveness</u> ^{**}					
<u>General Intelligence (B)</u>					
80 or below	16	4.8	1.88	0.64	.5934
81 to 90	24	4.8	2.40		
91 to 100	26	5.6	2.06		
101 to 120	17	5.4	2.15		
<u>Locus of Control (C)</u>					
Internal	40	5.8 ^a	2.18	5.63	.0209
External	43	4.6 ^b	1.96		
<u>Age (D)</u>					
18 to 24	33	4.8	2.17	0.95	.3939
25 to 31	32	5.2	2.24		
32 to 48	18	5.7	1.87		
<u>Interactions</u>					
B X C				0.97	.4128
B X D				1.02	.4221
C X D				0.76	.4707
B X C X D				0.15	.9796

(continued)

Table 4 (continued)

Variable	n	M	S	F value	p level
<u>Involvement</u>					
<u>General Intelligence (B)</u>					
80 or below	16	7.3	2.47	1.01	.3964
81 to 90	24	8.3	1.43		
91 to 100	26	8.7	1.26		
101 to 120	17	9.1	1.27		
<u>Locus of Control (C)</u>					
Internal	40	8.8	2.18	2.54	.1160
External	43	8.1	1.96		
<u>Age (D)</u>					
18 to 24	33	8.4	1.76	0.31	.7347
25 to 31	32	8.4	1.44		
32 to 48	18	8.4	2.03		
<u>Interactions</u>					
B X C				2.37	.0796
B X D				0.39	.8804
C X D				0.66	.5202
B X C X D				0.39	.8570

(continued)

Table 4 (continued)

Variable	n	M	S	F value	p level
<u>Independence</u>					
<u>General Intelligence (B)</u>					
80 or below	16	8.4	1.63	0.69	.5628
81 to 90	24	9.2	1.37		
91 to 100	26	8.7	1.61		
101 to 120	17	8.8	1.25		
<u>Locus of Control (C)</u>					
Internal	40	9.0	1.31	1.84	.1800
External	43	8.6	1.62		
<u>Age (D)</u>					
18 to 24	33	8.9	1.54	0.78	.4618
25 to 31	32	8.8	1.52		
32 to 48	18	8.7	1.36		
<u>Interactions</u>					
B X C				2.17	.1009
B X D				0.84	.5411
C X D				0.49	.6162
B X C X D				0.67	.6513

(continued)

Table 4 (continued)

Variable	n	M	S	F value	p level
<u>Orientation</u>					
<u>General Intelligence (B)</u>					
80 or below	16	5.6	2.58	0.85	.4744
81 to 90	24	6.6	1.81		
91 to 100	26	7.0	2.51		
101 to 120	17	6.6	2.06		
<u>Locus of Control (C)</u>					
Internal	40	7.1 ^a	2.26	6.67	.0122
External	43	6.0 ^b	2.17		
<u>Age (D)</u>					
18 to 24	33	6.2	2.33	0.71	.4962
25 to 31	32	6.8	2.13		
32 to 48	18	6.9	2.39		
<u>Interactions</u>					
B X C				1.23	.3058
B X D				0.95	.4700
C X D				0.70	.4983
B X C X D				0.42	.8314

(continued)

Table 4 (continued)

Variable	n	M	S	F value	p level
<u>Compromise</u>					
<u>General Intelligence (B)</u>					
80 or below	16	4.4	1.50	1.07	.3667
81 to 90	24	4.8	1.69		
91 to 100	26	5.4	1.14		
101 to 120	17	5.2	1.24		
<u>Locus of Control (C)</u>					
Internal	40	5.3	1.33	3.47	.0676
External	43	4.7	1.47		
<u>Age (D)</u>					
18 to 24	33	4.9	1.35	0.14	.8668
25 to 31	32	5.1	1.50		
32 to 48	18	4.9	1.51		
<u>Interactions</u>					
	B X C			0.32	.8134
	B X D			0.35	.9059
	C X D			0.48	.6194
	B X C X D			0.45	.8143

* The larger the value, the greater the career maturity.

** Possible scores: Decisiveness (0-10), Involvement (0-10), Independence (0-10), Orientation (0-10), and Compromise (0-7).

ab Difference statistically significant at the .05 level according to Bonferroni (Dunn) t test for means.

Two of the 35 p values were statistically significant at the .05 level; therefore, the null hypotheses for these comparisons were rejected. The statistically significant comparisons were for main effects. The following main effects were statistically significant:

1. the independent variable locus of control for the dependent variable Decisiveness, and
2. the independent variable locus of control for the dependent variable Orientation.

The results in Table 4 indicated the following for main effects:

1. individuals with internal locus of control had a statistically larger mean Decisiveness score than those with external locus of control, and
2. individuals with internal locus of control had a statistically larger mean Orientation score than those with external locus of control.

It was hypothesized in composite null hypothesis number 5 that the differences among the mean Career Maturity Inventory - Attitude Scale Counseling Form B-1 scores according to race, sex, and general intelligence would not be statistically significant. Information pertaining to composite null hypothesis number 5 was presented in Table 5. The following were cited in Table 5: variables, group sizes, means, standard deviations, F values, and p levels.

Table 5: A Comparison of Mean Career Maturity Inventory Attitude Scale Counseling Form B-1 Scores for Welfare Recipients According to Race, Sex, and General Intelligence Employing a Three-Way Analysis of Variance

Variable	n	M*	S	F value	p level
<u>Decisiveness</u> **					
<u>Race (E)</u>					
White	53	5.0	2.22		
Black	25	5.4	2.08	1.21	.3042
Hispanic	5	5.2	1.79		
<u>Sex (F)</u>					
Male	24	5.6	2.34		
Female	59	5.0	2.05	0.22	.6438
<u>General Intelligence (B)</u>					
80 or below	16	4.8	1.88		
81 to 90	24	4.8	2.40		
91 to 100	26	5.6	2.06	1.51	.2197
101 to 120	17	5.4	2.15		
<u>Interactions</u>					
	E X F			0.00	.9947
	E X B			0.57	.7244
	F X B			0.56	.6412
	E X F X B			1.08	.3032

(continued)

Table 5 (continued)

Variable	<u>n</u>	<u>M</u>	<u>S</u>	F value	p level
<u>Involvement</u>					
<u>Race (E)</u>					
White	53	8.5	1.77		
Black	25	8.2	1.55	0.11	.8930
Hispanic	5	7.8	1.48		
<u>Sex (F)</u>					
Male	24	7.8 ^a	2.01		
Female	59	8.7 ^b	2.48	9.62	.0028
<u>General Intelligence (B)</u>					
80 or below	16	7.3 ^a	2.47		
81 to 90	24	8.3	1.43		
91 to 100	26	8.7 ^b	1.26	3.59	.0181
101 to 120	17	9.1 ^b	1.27		
<u>Interactions</u>					
	E X F			0.08	.7822
	E X B			0.96	.4509
	F X B			2.15	.1021
	E X F X B			0.00	.9840

(continued)

Table 5 (continued)

Variable	<u>n</u>	<u>M</u>	<u>S</u>	<u>F</u> value	<u>p</u> level
<u>Independence</u>					
<u>Race (E)</u>					
White	53	8.5	1.65		
Black	25	8.2	0.86	0.94	.3977
Hispanic	5	7.8	1.52		
<u>Sex (F)</u>					
Male	24	7.8	1.82		
Female	59	8.7	1.31	0.62	.4349
<u>General Intelligence (B)</u>					
80 or below	16	7.3	1.63		
81 to 90	24	8.3	1.37		
91 to 100	26	8.7	1.61	1.12	.3472
101 to 120	17	9.1	1.25		
<u>Interactions</u>					
	E X F			0.73	.3963
	E X B			1.16	.3406
	F X B			0.85	.4738
	E X F X B			5.14	.0268

(continued)

Table 5 (continued)

Variable	n	M	S	F value	p level
<u>Orientation</u>					
<u>Race (E)</u>					
White	53	6.1	2.25		
Black	25	7.6	2.06	1.25	.2929
Hispanic	5	6.6	1.95		
<u>Sex (F)</u>					
Male	24	6.7	2.32		
Female	59	6.5	2.26	1.94	.1686
<u>General Intelligence (B)</u>					
80 or below	16	5.6 ^g	2.58		
81 to 90	24	6.6	1.81		
91 to 100	26	7.0 ^h	2.51	3.80	.0142
101 to 120	17	6.6	2.06		
<u>Interactions</u>					
	E X F			3.95	.0511
	E X B			0.10	.9926
	F X B			2.11	.1075
	E X F X B			1.34	.2511

(continued)

Table 5 (continued)

Variable	<u>n</u>	<u>M</u>	<u>S</u>	<u>F</u> value	<u>p</u> level
<u>Compromise</u>					
<u>Race (E)</u>					
White	53	5.0	1.45		
Black	25	5.0	1.50	2.08	.1330
Hispanic	5	4.6	0.89		
<u>Sex (F)</u>					
Male	24	5.0	1.68		
Female	59	5.0	1.33	0.09	.7668
<u>General Intelligence (B)</u>					
80 or below	16	4.4 ^d	1.50		
81 to 90	24	4.8	1.69		
91 to 100	26	5.4 ^e	1.14	3.70	.0160
101 to 120	17	5.2	1.24		
<u>Interactions</u>					
	E X F			1.57	.2153
	E X B			0.81	.5479
	F X B			2.56	.0623
	E X F X B			0.73	.3962

* The larger the value, the greater the career maturity.

** Possible scores: Decisiveness (0-10), Involvement (0-10), Independence (0-10), Orientation (0-10), and Compromise (0-7).

ab Difference statistically significant at the .05 level according to Bonferroni (Dunn) $\bar{t}$ test for means.

gh Difference statistically significant at the .05 level.

de Difference statistically significant at the .05 level according to Duncan's multiple-range test for means.

Six of the 35 p values were statistically significant at the .05 level; therefore, the null hypotheses for these comparisons were rejected. Four of the statistically significant comparisons were for main effects. The following main effects were statistically significant:

1. the independent variable sex for the dependent variable Involvement,
2. the independent variable general intelligence for the dependent variable Involvement,
3. the independent variable general intelligence for the dependent variable Orientation, and
4. the independent variable general intelligence for the dependent variable Compromise.

The results cited in Table 5 indicated the following for main effects:

1. females had a statistically larger mean Involvement score than males,
2. individuals with general intelligence of 91 and greater had a statistically larger mean Involvement score than those with 90 or below,
3. individuals with general intelligence of 91 to 100 had a statistically larger mean Orientation score than those with 80 or below, and
4. individuals with general intelligence of 91 to 100 had a statistically larger mean Compromise score than those with 80 or below.

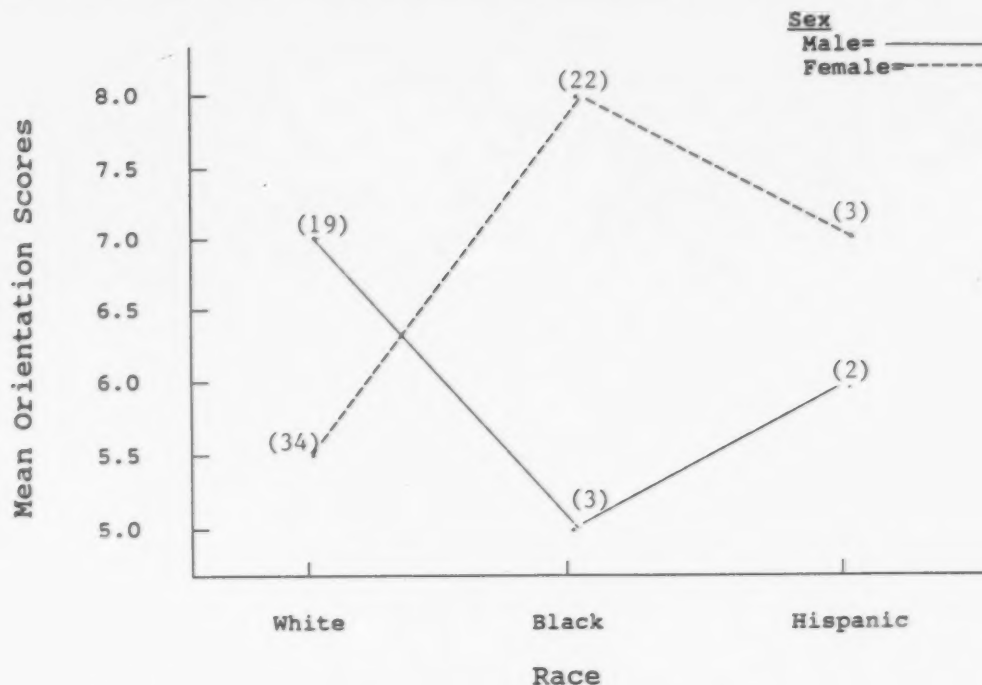
Two of the statistically significant comparisons were for interactions. The following interactions were statistically significant:

1. the independent variables race, sex, and general intelligence for the dependent variable Independence, and
2. the independent variables race and sex for the dependent variable Orientation.

The interaction among the independent variables race, sex, and general intelligence for the dependent variable Independence was not depicted in a profile plot. The interaction was not presented in a figure due to the sample size and the nature of the data.

The interaction between the independent variables race and sex for the dependent variable Orientation was depicted in a profile plot. Figure 3 contains mean Orientation scores and curves for sex.

Figure 3: The interaction between Independent Variables Race and Sex for the Dependent Variable Orientation



The interaction between the independent variables race and sex for the dependent variable Orientation was disordinal. The results cited in Figure 3 indicated the following:

1. Black females had numerically the largest mean Orientation score of any subgroup,
2. Black males had numerically the smallest mean Orientation score of any subgroup, and
3. Black females had numerically larger mean Orientation scores than Black males; and White males had numerically larger mean Orientation scores than White females.

Discussion

Summary

The purpose of the researcher was to investigate the career maturity of welfare recipients. The following six independent variables were investigated: race, sex, age, level of formal education, general intelligence, and locus of control. Dependent variables were scores from the following five scales of the Career Maturity Inventory - Attitude Scale Counseling Form B-1: Decisiveness, Involvement, Independence, Orientation, and Compromise. The sample consisted of 83 welfare recipients who were eligible for the Job Opportunities and Basic Skills (JOBS) program in a midwestern state. Five composite null hypotheses were tested at the .05 level of significance employing a three-way analysis of variance (general linear model).

A total of 100 comparisons were made plus 75 recurring. Of the 100 comparisons made, 30 were for main effects and 70 for interactions. Of the 30 main effects, 6 were statistically significant at the .05 level. The following main effects were statistically significant:

1. the independent variable locus of control for the dependent variable Decisiveness,
2. the independent variable locus of control for the dependent variable Orientation,
3. the independent variable sex for the dependent variable Involvement,

4. the independent variable general intelligence for the dependent variable Involvement,

5. the independent variable general intelligence for the dependent variable Orientation, and

6. the independent variable general intelligence for the dependent variable Compromise.

The results indicated the following for main effects:

1. individuals with internal locus of control had a statistically larger mean Decisiveness score than those with external locus of control,

2. individuals with internal locus of control had a statistically larger mean Orientation score than those with external locus of control,

3. females had a statistically larger mean Involvement score than males,

4. individuals with general intelligence of 91 and greater had a statistically larger mean Involvement score than those with 90 and less,

5. individuals with general intelligence of 91 to 100 had a statistically larger mean Orientation score than those with 80 or below, and

6. individuals with general intelligence of 91 to 100 had a statistically larger mean Compromise score than those with 80 or below.

Of the 70 interactions, 5 were statistically significant at the .05 level. The following interactions

were statistically significant:

1. the independent variables general intelligence and locus of control for the dependent variable Involvement,
2. the independent variables formal education, general intelligence, and locus of control for the dependent variable Involvement,
3. the independent variables formal education and age for the dependent variable Decisiveness,
4. the independent variables race, sex, and general intelligence for the dependent variable Independence, and
5. the independent variables race and sex for the dependent variable Orientation.

Related Literature and the Results of the Present Study

Overall, the results of the studies reviewed indicated an internal locus of control and a higher general intelligence to be consistent predictors of career maturity regardless of race, sex, age, and level of formal education. In terms of race, sex, age, and level of formal education, the results were less conclusive.

The results of the present study supported those reported by Stebbing (1985), Khan and Alvi (1983), Lokan, Boss, and Patsula (1982), Thomas and Carpenter (1976), and Gable, Thompson, and Glanstein (1976). The results of these studies indicated locus of control to be a valid predictor of career maturity. The present researcher found a statistically significant association between locus of

control and the following three scales of the Career Maturity Inventory - Attitude Scale Counseling Form B-1: Decisiveness, Involvement, and Orientation.

Lawrence and Brown (1976) found a positive association between intelligence and career maturity in their study of 9th, 10th, and 12th grade students. They also reported an association among intelligence, race, sex, and career maturity. The results of the present study supported those of Lawrence and Brown. Subjects of the present study with a higher general intelligence were found to also have a higher career maturity on the following scales of the Career Maturity Inventory - Attitude Scale Counseling Form B-1: Involvement, Independence, Orientation, and Compromise.

The results of Lawrence and Brown (1976), McNair and Brown (1983), and Lee (1984) all indicated Whites as being more career mature than Blacks. The results of the present study failed to support the results of those studies conclusively. The present researcher found Black females had numerically the highest career maturity on the Orientation Scale and Black males had numerically the lowest career maturity. Also on the Orientation Scale, White males were found to be numerically more career mature than White females.

Lee (1984) and Herr and Enderlein (1976) reported females as significantly more career mature than males. However, Lawrence and Brown (1976) and McNair and Brown

(1983) did not report a significant difference between males and females. The present researcher found that females were significantly more career mature on the Involvement Scale of the Career Maturity Inventory - Attitude Scale Counseling Form B-1 than males, thus, supporting the results of Lee, and Herr and Enderlein.

Herr and Enderlein (1976) studied the career maturity of 9th, 10th, and 12th grade students and reported that career maturity increased with grade level, but not without other influences such as school effects, curriculum choices, and sex differences. Healy, O'Shea, and Crook (1985) studied 18 to 30 year old college students and reported a positive association between age and career maturity. That is, career attitudes mature with age. The results of the present study indicated individuals aged 18 to 24 with formal education of more than a high school diploma had numerically higher career maturity on the Decisiveness Scale, thus, supporting the conclusions of Herr and Enderlein, and Healy, O'Shea, and Crook for this age group. The present researcher also found adults aged 32 to 48 with formal education of more than a high school diploma had numerically the lowest career maturity on the Decisiveness Scale. Therefore, for this age group, the results of the present study did not support the findings of Healy, O'Shea, and Crook that career attitudes mature with age.

Generalizations

The results of the present study appeared to support the following generalizations:

1. individuals with internal locus of control are more mature in Decisiveness,
2. individuals with internal locus of control are more mature in Orientation,
3. females are more mature in Involvement than males,
4. individuals with general intelligence (91 to 100) are more mature in Orientation,
5. individuals with general intelligence (91 to 100) are more mature in Compromise, and
6. significant interactions for
 - (a) the independent variables general intelligence and locus of control for the dependent variable Involvement,
 - (b) the independent variables formal education, general intelligence, and locus of control for the dependent variable Involvement,
 - (c) the independent variables formal education and age for the dependent variable Decisiveness,
 - (d) the independent variables race, sex, and general intelligence for the dependent variable Independence, and
 - (e) the independent variables race and sex for the dependent variable Orientation.

Recommendations

The results of the present study appeared to support the following recommendations:

1. the study should be replicated with a large random sample,
2. the study should be replicated in a variety of geographical areas, and
3. the study should be replicated as longitudinal.

References

- Amster, J. B., & Lazarus, P. J. (1982). Locus of control of disadvantaged high school dropouts: Preliminary data. Perceptual and Motor Skills, 55, 1332-1334.
- Bartlett, W. E. (1968). Vocational maturity and personality variables of manpower trainees. Vocational Guidance Quarterly, 17, 104-108.
- Chisman, F. P., & Woodworth, R. S. (1992). The promise of JOBS: Policies, programs and possibilities. A Report on an Investigation of Basic Skills Instruction in the Job Opportunities and Basic Skills Training Program (JOBS). Washington, DC: The Southport Institute for Policy Analysis.
- Crites, J. O. (1965). Measurement of vocational maturity in adolescence: I. Attitude test of the Vocational Development Inventory. Psychological Monographs: General and Applied, 79 (2 Whole No. 595).
- Crites, J. O. (1978a). Career Maturity Inventory: Administration and Use Manual (2nd ed.). Monterey, CA: CTB/McGraw-Hill.
- Crites, J. O. (1978b). Career Maturity Inventory: Theory and Research Handbook (2nd ed.). Monterey, CA: CTB/McGraw-Hill.
- Cull, J. G., & Hardy, R. E. (1973). The big welfare mess: Public assistance and rehabilitation approaches. Springfield, IL: Charles C Thomas.

- Furstenberg, F. F., Brooks-Gunn, J., & Morgan, S. P. (1987). Adolescent mothers in later life. Cambridge, NY: Cambridge University Press.
- Gable, R. K., Thompson, D. L., & Glanstein, P. J. (1976). Perceptions of personal control and conformity of vocational choice as correlates of vocational development. Journal of Vocational Behavior, 8, 259-267.
- Gladstone, L., & Trimmer, H. W. (1985). Factors predicting success in training and employment for WIN clients in southern Nevada. Journal of Employment Counseling, 22, 59-69.
- Healy, C. C., O'Shea, D. O., & Crook, R. H. (1985). Relation of career attitudes to age and career progress during college. Journal of Counseling Psychology, 32, 239-244.
- Herr, E. L., & Enderlein, T. E. (1976). Vocational maturity: The effects of school, grade, curriculum and sex. Journal of Vocational Behavior, 8, 227-238.
- Holland, M. (1981). Relationships between vocational development and self concept in sixth grade students. Journal of Vocational Behavior, 18, 228-236.
- Kansas Department of Human Resources. (December, 1993). Labor market review. Topeka, KS: Division of Policy & Management Analysis Labor Market Information Services.
- Khan, S. B., & Alvi, S. A. (1983). Educational, social and psychological correlates of vocational maturity. Journal

- of Vocational Behavior, 22, 357-364.
- Lawrence, W., & Brown, D. (1976). An investigation of intelligence, self-concept, socioeconomic status, race, and sex as predictors of career maturity. Journal of Vocational Behavior, 9, 43-52.
- Lee, C. C. (1984). Predicting the career choice attitudes of rural Black, White, and Native American high school students. Vocational Guidance Quarterly, 32, 177-184.
- Lokan, J. J., Boss, M. W., & Patsula, P. J. (1982). A study of vocational maturity during adolescence and locus of control. Journal of Vocational Behavior, 20, 331-342.
- Luzzo, D. A. (1991). Social class and ethnic differences in college students' career maturity: A quantitative and qualitative analysis. A paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL. (ERIC Document Reproduction Service No. ED 333 152)
- Manuele, C. A. (1983). The development of a measure to assess vocational maturity in adults with delayed career development. Journal of Vocational Behavior, 23, 45-63.
- McMillan, J. H., & Schumacher, S. (1984). Research in education: A conceptual introduction. Boston, MA: Little, Brown and Company.
- McNair, D., & Brown, D. (1983). Predicting the occupational aspirations, occupational expectations, and career maturity of Black and White male and female 10th

- graders. Vocational Guidance Quarterly, 32, 29-36.
- Nightingale, D. S. (1989). Effects of increased emphasis on education-related activities for welfare recipients. Washington, DC: The Urban Institute. (ERIC Document Reproduction Service No. ED 315 524)
- Palmo, A. J., & Lutz, J. G. (1983). The relationship of performance on the CMI to intelligence with disadvantaged youngsters. Measurement and Evaluation in Guidance, 16, 139-148.
- Randolph, G. C., II, & McCarthy, K. V. (1991). ADC mothers reach self sufficiency through comprehensive support and family development services program. (ERIC Document Reproduction Service No. ED 343 052)
- Rodriguez, M., & Blocher, D. (1988). A comparison of two approaches to enhancing career maturity in Puerto Rican college women. Journal of Counseling Psychology, 35, 275-280.
- Rolle, G. F., Sr. (1977). Facilitating career development of minority students. Atlanta, GA: Southern Association of Colleges and Schools. (ERIC Document Reproduction No. Ed 189 280)
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs: General and Applied, 80, Whole No. 609, p. 1-28.
- Sklar, M. H. (1987). Welfare-to-work: Options through job

- training. Employment and training issues. (ERIC Document Reproductive Service No. ED 282 039)
- Stebbing, M. C. (1985). Human potential: A study of locus of control, sex, role orientation, and career maturity. A paper presented at the Annual Meeting of the American Educational Research Association, 69th, Chicago, IL. (ERIC Document Reproduction Service No. ED 257 953)
- Super, D. E. (1955). Dimensions and measurement of vocational maturity. Teachers College Record, 57, 151-163.
- Super, D. E., Crites, J. O., Hummel, R. C., Moser, H. P., Overstreet, P. C., & Warnath, C. F. (1957). Vocational development: A framework for research. New York: Teachers College, Columbia University.
- Super, D. E., and Kidd, K. M. (1979). Vocational maturity in adulthood: Toward turning a model into a measure. Journal of Vocational Behavior, 14, 255-270.
- Super, D. E., & Overstreet, P. L. (1960). The vocational maturity of ninth grade boys. New York: Teachers College Press.
- Thomas, H. B., & Carpenter, J. A. (1976). A developmental study of the mediating effects of locus of control on career maturity. A paper presented at the Annual Meeting of the National Council on Measurement in Education, San Francisco, CA. (ERIC Document Reproduction Service No. Ed 134 593)

U.S. Department of Labor, Employment and Training

Administration, U.S. Employment Service. (1983). Manual for the USES General Aptitude Test Battery. Section I: Administration and Scoring (Forms C and D). Salt Lake City, UT: Utah Department of Employment Security.

U.S. Department of Labor, Manpower Administration. (1979). Manual for the USES General Aptitude Test Battery. Section III: Development. Washington, DC: U.S. Government Printing Office.

West, D. K. (1988). Comparisons of career maturity and its relationship with academic performance. Journal of American Indian Education, 27, 1-7.

Appendix A
Correlation Coefficients Between Item
and Total Score for the I-E Scale

Correlation Coefficients Between Item
and Total Score for the I-E Scale*

Item Number	Biserial Correlation Coefficient
1.	(filler)
2.	.260
3.	.182
4.	.289
5.	.179
6.	.319
7.	.229
8.	(filler)
9.	.164
10.	.238
11.	.301
12.	.265
13.	.271
14.	(filler)
15.	.288
16.	.307
17.	.357
18.	.310
19.	(filler)
20.	.271

21.	.152
22.	.227
23.	.255
24.	(filler)
25.	.480
26.	.195
27.	(filler)
28.	.238
29.	.109

* $N=400$, 200 males, 200 females

Appendix B
Permission to Utilize Data Generated
from Pre-Orientation Vocational Assessment
Sessions Conducted with Welfare Recipients
Who were Eligible for the JOBS Program

February 14, 1994

Phyllis Lewin, Director
Employment Preparation Services
West Hall, 2nd Floor
300 SW Oakley
Topeka, KS 66606

Dear Ms. Lewin:

I am a vocational counselor with the DHR KanWork program in Sedgwick County. I am working toward the completion of a Master of Science degree in Counseling from Fort Hays State University. A thesis is required for completion of this program. The topic I have chosen is the career maturity of welfare recipients.

My plan is to investigate race, sex, age, level of formal education, general intelligence (measured by the General Aptitude Test Battery), locus of control (measured by Rotter's I-E Scale), and career maturity (measured by the Career Maturity Inventory) of welfare recipients.

Recently I spoke with Linda Sorrell, Director of the SRS KanWork program in Sedgwick County, and gained her support for my research project. She has agreed to allow me to conduct pre-orientation vocational assessment sessions which would include the testing instruments mentioned above.

All new KanWork clients subject to initial contact in March, 1994, will be scheduled for pre-orientation vocational assessments (group sessions lasting approximately 4 hours). This is not a current practice in Sedgwick County, but has been a long-time goal and will be viewed as a pilot project. In addition, the pre-orientation vocational assessments may speed up each client's career choice process. If successful, consideration will be given to adopting this procedure to the intake process in Sedgwick County according to Ms. Sorrell.

Please consider this request to use data from these assessments for my research thesis. No clients will be identified by name, and all information will be treated as

group data. In addition, a profile will be completed on each client which will be given to the SRS KanWork casemanagers to be used as part of their assessment.

Your immediate reply would be greatly appreciated. Please mark the appropriate response below:

_____ Permission is hereby granted to Ms. Carol Beckman to use data collected during the pre-orientation vocational assessment sessions conducted with welfare recipients in the KanWork program.

_____ Permission is denied.

Please return this request to me in the enclosed envelope as soon as possible. If you have questions, please feel free to contact me during office hours, 8:00 a.m. to 5:00 p.m. at (316) 266-8611.

Sincerely,

Carol Beckman
KanWork Vocational Counselor
Department of Human Resources

Appendix C
Sample Letter to Subjects

Dear KanWork Client:

You are about to enter the KanWork program. Before you do, however, you are required to attend a pre-orientation vocational assessment.

This assessment will take approximately four (4) hours. The results of your assessment will help you and your KanWork casemanager decide upon your plan of action.

It is critical that you attend this assessment. Please report to the Job Service Center, 402 East 2nd Street (2nd & Topeka) at 9:00 a.m. on Monday, March 14, 1994.

Please do not bring children as there are no accommodations for their care. If you need assistance with child care or transportation, please contact the person listed below.

We look forward to seeing you!

Appendix D
Verbal Instructions
for Test Administration

Verbal Instructions for Test Administration

1. SAY: Thank you for coming to the pre-orientation vocational assessment. The assessment you complete today will provide information regarding your academic strengths and abilities and career decision making skills.

Instructions will be provided to you for each assessment, so please listen carefully.

2. SAY: The first assessment you will be taking is called the General Aptitude Test Battery. This assessment will provide information regarding your academic skills and abilities, and give an indication of the types of jobs and/or training you would be able to do easily. It is a standardized test and because of that, the instructions will be read verbatim from the manual.

3. The researcher used instructions for the administration of the GATB - Form D from the Manual for the USES General Aptitude Test Battery Section I: Administration and Scoring (U.S. Department of Labor, Employment and Training Administration, U.S. Employment Service, 1983).

4. The subjects were allowed a 10 minute break after all of them had finished the GATB. Once all subjects had returned and were settled, the researcher continued.

5. SAY: Now you will complete the second of the three assessments. This one is not timed. Please write your name and today's date at the top of the assessment form.

6. HAND OUT THE I-E SCALE.
7. The researcher used instructions for the administration of the I-E Scale taken from Rotter [(1966) Appendix E].
8. After all subjects had finished the I-E Scale, the copies were collected.
9. SAY: The last assessment is also not timed. When you finish, please hand it to me and then you may go. The results of your assessment will be given to your KanWork casemanager.
10. HAND OUT THE CAREER MATURITY INVENTORY - ATTITUDE SCALE COUNSELING FORM B-1.
11. The researcher used instructions for the administration of the Attitude Scale of the Career Maturity Inventory from the Administration and Use Manual by Crites (1978a).
12. Participants were thanked individually as they handed in the last assessment.

Instruments were handed out in the following order:

1. General Aptitude Test Battery;
2. I-E Scale; and
3. Career Maturity Inventory - Attitude Scale.

Additional items needed for the administration of the instrument included the following:

1. No. 2 pencils;
2. scratch paper; and
3. a stopwatch.

Appendix E
Instructions for the I-E Scale

Instructions for the I-E Scale*

SAY: This is a questionnaire to find out the way in which certain important events in our society affect different people. Each item consists of a pair of alternatives lettered a or b. Please select the one statement of each pair (and only one) which you more strongly believe to be the case as far as you're concerned. Be sure to select the one you actually believe to be more true rather than the one you think you should choose or the one you would like to be true. This is a measure of personal belief: obviously there are no right or wrong answers. ...Please answer these items carefully but do not spend too much time on any one item. Be sure to find an answer for every choice. Circle either a or b on each question for the statement you believe to be more true. In some instances you may discover that you believe both statements or neither one. In such cases, be sure to select the one you more strongly believe to be the case as far as you're concerned. Also try to respond to each item independently when making your choice; do not be influenced by your previous choices.

* Adapted from, Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs: General and Applied, 80, (1 Whole No. 609)